

**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

Sutter Maintenance Yard Maintenance Area 0001

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	11/01/2016 11/01/2016	Tariq Chechi

LM Start		Rating **	A	Issue No.	19
LM End		Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Emergency Supplies & Equipment			°	°
				°	°
DWR ID	DWR_MA0001_01_s _ 2016_19				
Comment Code					
Inspector Comment					
The LMA has emergency supplies and equipment.					

No Photos

LM Start		Rating **	A	Issue No.	28
LM End		Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Operations & Maintenance Manuals			°	°
				°	°
DWR ID	DWR_MA0001_01_s _ 2013_28				
Comment Code					
Inspector Comment					
The LMA has O&M manuals.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	11/01/2016 11/01/2016	Tariq Chechi

LM Start	0.53	Rating **	N	Issue No.	101
LM End	0.53	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			39.215808 °	39.215808 °
				-122.009995 °	-122.009995 °
DWR ID	DWR_MA0001_01_f_2016_101				
Comment Code					
T5 : Tree stumps.					
Inspector Comment					

No Photos

LM Start	0.67	Rating **	M	Issue No.	102
LM End	0.69	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			39.216513 °	39.216642 °
				-122.012440 °	-122.012773 °
DWR ID	DWR_MA0001_01_f_2016_102				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

Photo 1 of 1 : FA_2016_MA0001_297_102_20161104_00158.jpg



View of a tree obstructing visibility and access.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	11/01/2016 11/01/2016	Tariq Chechi

LM Start	0.68	Rating **	N	Issue No.	103
LM End	0.68	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			39.216560°	39.216560°
				-122.012530°	-122.012530°
DWR ID	DWR_MA0001_01_f_2016_103				
Comment Code					
T5 : Tree stumps.					
Inspector Comment					

Photo 1 of 1 : FA_2016_MA0001_297_103_20161104_00159.jpg



View of a tree stump along the waterside slope.

LM Start	1.11	Rating **	M	Issue No.	104
LM End	1.11	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			39.220728 °	39.220728 °
				-122.015885 °	-122.015885 °
DWR ID	DWR_MA0001_01_f_2016_104				
Comment Code					
S1 : Repair slope instability.					
Inspector Comment					

Photo 1 of 1 : FA_2016_MA0001_297_104_20161104_00161.jpg



View of a slope instability issue along the landside slope.

LM Start	2.16	Rating **	M	Issue No.	105
LM End	2.16	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			39.235107 °	39.235107 °
				-122.013567 °	-122.013567 °
DWR ID	DWR_MA0001_01_f_2016_105				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					

Photo 1 of 2 : FA_2016_MA0001_297_105_20161104_00162.jpg



View of an erosion site along the waterside berm.

*** Location**

LS : Land Side N/A : Not Applicable
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable N : Not Inspected/Rated
M : Minimally Acceptable C : Corrected
U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	11/01/2016 11/01/2016	Tariq Chechi

LM Start	2.16	Rating **	M	Issue No.	105 (cont)	
LM End	2.16	Issue Type +	Ma	Location *	WS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Erosion / Bank Caving			39.235107°		39.235107°
				-122.013567°		-122.013567°
DWR ID	DWR_MA0001_01_f_2016_105					
Comment Code						
E2 : Schedule repair of erosion site prior to the next inspection.						
Inspector Comment						

Photo 2 of 2 : FA_2016_MA0001_297_105_20161104_00163.jpg



Another close up view of the erosion site.

LM Start	2.36	Rating **	M	Issue No.	108
LM End	2.36	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			39.237628 °	39.237628 °
				-122.011967 °	-122.011967 °
DWR ID	DWR_MA0001_01_f_2016_108				
Comment Code					
S1 : Repair slope instability.					
Inspector Comment					

Photo 1 of 1 : FA_2016_MA0001_297_108_20161104_00166.jpg



View of the slope instability along the landside slope.

LM Start	3.09	Rating **	C	Issue No.	81
LM End	3.09	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			39.247332 °	39.247332 °
				-122.008164 °	-122.008164 °
DWR ID	DWR_MA0001_01_s_2016_81				
Comment Code					
T3 : Trim and thin trees to allow visibility of the ground and room to flood fight.					
Inspector Comment					
downed tree covering LS slope.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	11/01/2016 11/01/2016	Tariq Chechi

LM Start	3.88	Rating **	M	Issue No.	50
LM End	3.88	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.257125 °	39.257125 °
				-122.012648 °	-122.012648 °
DWR ID	DWR_MA0001_01_f_2013_50				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					

No Photos

LM Start	4.86	Rating **	M	Issue No.	3
LM End	5.26	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			39.265730 °	39.266315 °
				-122.014925 °	-122.020682 °
DWR ID	DWR_MA0001_01_s_2016_3				
Comment Code					
Inspector Comment					
2009 - Slump in the middle of the section has left a vertical section on the bank. 2010 - Old cobble site unraveling, site extended downstream. 2015: Last observed in 2013. [2015 Site ID: SAC_151-0_R]					

Photo 1 of 1 : FA_2016_MA0001_297_3_20160823_00002.jpg



USACE 2013 Photo #1

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Sutter Maintenance Yard Maintenance Area 0001

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	11/01/2016 11/01/2016	Tariq Chechi

LM Start	5.77	Rating **	M	Issue No.	35
LM End	5.77	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.272773 °	39.272773 °
				-122.023290 °	-122.023290 °
DWR ID	DWR_MA0001_01_s_2012_35				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					

No Photos

LM Start	6.85	Rating **	N	Issue No.	116
LM End	6.85	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			39.288092°	39.288092°
				-122.021062°	-122.021062°
DWR ID	DWR_MA0001_01_f_2016_116				
Comment Code					
T5 : Tree stumps.					
Inspector Comment					

No Photos

LM Start	7.28	Rating **	M	Issue No.	117
LM End	7.28	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			39.294273 °	39.294273 °
				-122.021493 °	-122.021493 °
DWR ID	DWR_MA0001_01_f_2016_117				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	11/01/2016 11/01/2016	Tariq Chechi

LM Start	7.70	Rating **	M	Issue No.	52
LM End	7.70	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.297303 °	39.297303 °
				-122.025257 °	-122.025257 °
DWR ID	DWR_MA0001_01_s_2012_52				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					

No Photos

LM Start	8.72	Rating **	M	Issue No.	119
LM End	8.72	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			39.308272 °	39.308272 °
				-122.031215 °	-122.031215 °
DWR ID	DWR_MA0001_01_f_2016_119				
Comment Code					
S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.					
Inspector Comment					

Photo 1 of 1 : FA_2016_MA0001_297_119_20161104_00174.jpg



View of the slope instability caused by vehicles along the landside slope.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Sutter Maintenance Yard Maintenance Area 0001

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	11/01/2016 11/01/2016	Tariq Chechi

LM Start	10.13	Rating **	M	Issue No.	18
LM End	10.13	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			39.328697 °	39.328697 °
				-122.029262 °	-122.029262 °
DWR ID	DWR_MA0001_01_s_2012_18				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Monitor the erosion site.					

Photo 1 of 1 : FA_2016_MA0001_297_18_20160823_00009.jpg



View of the erosion along the waterside of the levee.

LM Start	11.00	Rating **	M	Issue No.	120
LM End	11.00	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			39.340728 °	39.340728 °
				-122.032897 °	-122.032897 °
DWR ID	DWR_MA0001_01_f_2016_120				
Comment Code					
T1 : Trim trees to at least five feet above ground level.					
Inspector Comment					

Photo 1 of 1 : FA_2016_MA0001_297_120_20161107_00175.jpg



View of the tree with overhanging branches.

LM Start	11.01	Rating **	M	Issue No.	12
LM End	11.01	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			39.340774 °	39.340774 °
				-122.032872 °	-122.032872 °
DWR ID	DWR_MA0001_01_s_2012_12				
Comment Code					
V4 : Elderberries are blocking visibility and flood fight capability.					
Inspector Comment					

No Photos

* Location		** Rating		+ Issue Type	
LS : Land Side	N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency	
WS : Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence	
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement	

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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	11/01/2016 11/01/2016	Tariq Chechi

LM Start	11.46	Rating **	M	Issue No.	121
LM End	11.46	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			39.347168°	39.347168°
				-122.031533°	-122.031533°
DWR ID	DWR_MA0001_01_f_2016_121				
Comment Code					
S1 : Repair slope instability.					
Inspector Comment					
Backfill and compact.					

Photo 1 of 1 : FA_2016_MA0001_297_121_20161107_00176.jpg



View of the low spot along the levee toe created by adjacent ditch overflow.

LM Start	11.53	Rating **	C	Issue No.	83
LM End	11.53	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			39.348151°	39.348151°
				-122.031260°	-122.031260°
DWR ID	DWR_MA0001_01_s_2016_83				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

No Photos

* Location
LS : Land Side N/A : Not Applicable
WS : Water Side
CR : Crown

** Rating
A : Acceptable N : Not Inspected/Rated
M : Minimally Acceptable C : Corrected
U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ Issue Type
Ma : Maintenance Deficiency
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En : Enforcement

Sutter Maintenance Yard Maintenance Area 0001

View of the Johnson grass along the levee toe and concrete lined ditch.

No Photos

No Photos

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Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2016

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	11/01/2016 11/01/2016	Tariq Chechi

View of the landside toe erosion caused by ag pipe.

View of a small sinkhole along the levee.

View of the slope instability caused by vehicles along the landside slope.

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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	11/01/2016 11/01/2016	Tariq Chechi

LM Start	15.86	Rating **	N	Issue No.	131
LM End	15.86	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			39.400875 °	39.400875 °
				-122.009680 °	-122.009680 °
DWR ID	DWR_MA0001_01_f_2016_131				
Comment Code					
T5 : Tree stumps.					
Inspector Comment					
About 7 stumps on the landside.					

No Photos

LM Start	15.99	Rating **	M	Issue No.	132
LM End	15.99	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			39.402605 °	39.402605 °
				-122.009348 °	-122.009348 °
DWR ID	DWR_MA0001_01_f_2016_132				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					

Photo 1 of 1 : FA_2016_MA0001_297_132_20161107_00188.jpg



View of the rodent holes along the landside slope.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	16.76	11/01/2016 11/01/2016	Tariq Chechi

LM Start	16.35	Rating **	M	Issue No.	9
LM End	16.58	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	2015 USACE Erosion Survey, DRAFT			39.407837 °	39.411111 °
				-122.008763 °	-122.009238 °
DWR ID	DWR_MA0001_01_s_2016_9				
Comment Code					
Inspector Comment					
Erosion site added in 1997 and removed in 2005. 2009 - Site added back in, hard toe with slow moving erosion. Potential geotechnical failure. 2011 - Site extended downstream. 2015: Last observed in 2013. [2015 Site ID: SAC_164-3_R]					

LM Start	16.35	Rating **	M	Issue No.	9 (cont)
LM End	16.58	Issue Type +	Ma	Location *	WS

Photo 1 of 2 : FA_2016_MA0001_297_9_20160823_00006.jpg



USACE 2013 Photo #1

Photo 2 of 2 : FA_2016_MA0001_297_9_20160823_00007.jpg



USACE 2013 Photo #2

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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